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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Maria Adamczyk

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MYERS BIGEL SIBLEY & SAJOVEC, P.A.

P.O. BOX 37428

RALEIGH, NC 27627

EXAMINER

MUI, GARY

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/719,270	Applicant(s) ADAMCZYK ET AL.	
	Examiner GARY MUI	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-24,26-29,31-34,37,38,40 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-24,26-29,31-34,37,38,40 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 10, 2008 has been entered.
2. Claims 2, 25, 30, 35, and 39 have been cancelled as indicated by the amendment filed on July 23, 2007 and claims 6 and 36 have been cancelled as indicated by the amendment filed on January 10, 2008.
3. Claims 1, 3 – 5, 7 – 24, 26 – 29, 31 – 34, 37, 38, 40 and 41 are currently pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3 – 5, 13, 21 – 24, 26, 28, 31 – 34, 37, 38, 40, and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Chellis et al. (US 6,901,446 B2; hereinafter "Chellis").

For claims 1 and 24, Chellis teaches for each of a plurality of applications of a service provider which will communicate across the communication network, requesting a level of

network communication QoS using QoS requests from the service provider (see column 3 line 17 – 23 and column 8 line 51 – column 9 line 3; consumers (which can be applications) requests resources), allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests (see column 9 lines 3 – 16; resource allocator); and managing network communication QoS that is provided to network communications by the individual applications of the service provider in response to the network communication QoS levels allocated to the respective individual applications (see column 3 lines 17 – 23; management of resources).

For claim 3, Chellis teaches generating a plurality of QoS requests, wherein each of the QoS requests is for a different one of the applications of the service provider (see column 8 line 51 – column 9 line 3).

For claim 4, Chellis teaches allocating a level of network communication QoS to a particular one of the applications of the service provider in response to a QoS request for the particular application (see column 9 line 3 – 16).

For claims 5 and 26, Chellis teaches all allocating a network capacity level for communications by a particular one of the applications of the service provider in response to a QoS request for the particular application; and managing network communication QoS comprises constraining network communications by the particular one of the applications of the service provider to the allocated network capacity level (see column 8 line 51 – column 9 line 16, allocation of communication bandwidth).

For claim 13, Chellis teaches evaluating at a network service manager the QoS that is available in the communication network; and allocating a level of network communication

QoS to a particular one of the applications of the service provider in response to a QoS request for the particular application and the evaluation of the QoS available in the communication network (see column 9 line 39 – line 67).

For claims 21, 32, and 38, Chellis teaches allocating the requested level of network communication QoS to the service provider comprises notifying a broadband remote access server of the levels of network communication QoS allocated to particular applications of the service provider (see column 9 lines 39 – 67).

For claims 22, 33, and 37, Chellis teaches allocating the requested level of network communication QoS to the service provider comprises notifying a routing gateway of the levels of network communication QoS allocated to particular applications of the service provider (see column 9 lines 39 – 67).

For claim 23, Chellis teaches notifying the individual applications of the service provider of the levels of network communication QoS that have been allocated thereto (see column 9 lines 3 – 14).

For claim 28, Chellis teaches the QoS network management when executed by a processor is configured to shape information flow from a particular one of the applications of the service provider through the communication network in response to the QoS request for the particular application (see column 3 lines 36 – 59).

For claim 31, Chellis teaches identify an application program of the service provider that is associated with the QoS request, and is configured to evaluate the QoS request based on the identified application program (see column 9 lines 39 – 67).

For claim 34, Chellis teaches a service provider; an application framework infrastructure; an access network communicatively coupling the service provider and the application framework infrastructure; a plurality of routing gateways; and a wide area network that communicatively couples the application framework infrastructure and the plurality of routing gateways, wherein the service provider is configured to request a level of network communication QoS for each of a plurality of applications of the service provider which will communicate across the wide area network using QoS requests from the service provider, wherein the application framework infrastructure is configured to allocate levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests, and wherein the routing gateways manage network communication QoS that is provided to network communications through the wide area network by individual ones of the applications of the service provider in response to the allocated levels of network communication QoS (see column 9 lines 3 – 16, see column 3 lines 17 – 23, and figure 13; resource allocator and the management of resources).

For claim 40, Chellis teaches allocating a different network communication QoS level to each one of a plurality of applications of a service provider (see column 9 lines 3 - 16; resources are allocated); and managing network communication QoS that is provided to network communications the individual ones of the applications of the service provider in response to the network communication QoS levels allocated to the respective individual applications (see column 3 lines 17 – 23; management of resources).

For claim 41, Chellis teaches allocating a different network communication QoS level to each one of a plurality of IP addresses associated with different applications of a service provider

(see column 9 lines 3 - 16; resources are allocated, various consumers will have different IP address); and managing network communication QoS that is provided to network communications by individual ones of the applications in response to the network communication QoS levels allocated to the associated IP addresses see column 3 lines 17 – 23; management of resources).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 8 – 10 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Chellis in view of Raisanen et al. (US 2003/0152028 A1; hereinafter “Raisanen”).

For claims 8 – 10, Chellis teaches all of the claimed subject matter with the exception of allocating levels of network communications QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating an allowed information delay level, information loss rate, or allowed packet size for communications through the communication network by a particular one of the applications of the service provider in response to a QoS request for the particular application and managing network communication QoS comprising managing network communications by the particular one of the applications of the service provider in response to the allocated allowed information delay level, information loss rate, or allowed packet size. Raisanen from the same field of endeavor teaches the measurement profile determines for example the QoS parameters (such as delay, jitter, packet loss, packet loss correlation, bandwidth) the values of which the measuring host A, C, B, D is to calculate and how it will deliver to the result to the QM (see paragraph 0040). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to allocate and manage the information as taught by Raisanen into the resource management system of Chellis. The motivation for doing this is to provide for a reliable system by providing all necessary information to meet requirements.

For claim 12, Chellis teaches all of the claimed subject matter with the exception of allocating levels of network communication QoS to individual ones of the applications of the service

provider in response to the QoS requests comprises modifying a profile of information that is communicated through the communication network by a particular one of the applications of the service provider in response to a QoS request for the particular application. Raisanen from the same field of endeavor teaches the measurement profile determines for example the QoS parameters (such as delay, jitter, packet loss, packet loss correlation, bandwidth) the values of which the measuring host A, C, B, D is to calculate and how it will deliver to the result to the QM (see paragraph 0040). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the QoS profile as taught by Raisanen into the resource management system of Chellis. The motivation for doing this is to provide for a reliable system by providing all necessary information to meet requirements.

Claim Rejections - 35 USC § 103

10. Claims 14 – 16, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chellis in view of Goyal et al. (US 6,999,474 A1; hereinafter “Goyal”).

For claims 15 and 29, Chellis teaches all of the claimed subject matter with the exception of evaluating at a network service manager the QoS available in the network comprises validating the QoS request for the particular application of the service provider. Goyal from the same field of endeavor authenticating the signaling messages and authorize the request for services (see column 5 lines 25 – 31). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to validate the request as taught

by Goyal into the resource management system of Chellis. The motivation for doing this is to have a more secure system.

For claim 14, Chellis fails to teach that the service manger comprises a DSL service manager. However, it would have been obvious to one skilled in the art at the time of the invention to have a DSL service manager because it can increase the compatibility of the system.

For claim 16, Chellis fails to teach comparing the QoS request to a DSL session data store. However, Chellis teaches the resource allocator checks for the availability of the resources before allocating (se column 9 lines 3 – 14). Therefore, it would have been obvious to use a DSL session data store because it can increase the compatibility of the system.

Claim Rejections - 35 USC § 103

11. Claims 7 and 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chellis.

For claims 7 and 27, Chellis teaches all of the claimed subject matter with the exception allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating a communication priority level for communications by a particular one of the applications of the service provider through the communication network in response to a QoS request for the particular application; and managing network communication QoS comprises prioritizing network communications by the particular one of the applications of the service provider in response to the allocated communication priority level. However, it would have been obvious to one skilled in t the art at the time of the invention was made to allocated communication priority level. It is noted that Chellis teaches that the resources can be an entity including but not

limited to communication bandwidth or network devices (see column 8 lines 51 – 53). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to allocate priority level because increase the reliability of the system as higher priority applications can be processed first.

Claim Rejections - 35 USC § 103

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chellis in view of Waclawsky et al. (US 6,628,610 B1; hereinafter “Waclawsky”).

For claim 11, Chellis teaches all of the claimed subject matter with the exception of allocating a Maximum Transmission Unit size for packets communicated through a network based on the allocated level of QoS; and managing network communication QoS comprises constraining packet size in network communications by the particular one of the applications of the service provider in response to the allocated Maximum Transmission Unit size. Waclawsky from the same field of endeavor teaches changing the size of the packets in the flow for the communication device (see paragraph 4 lines 55 – 66). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to adjust the packet size as taught by Waclawsky into the resource management system of Chellis. The motivation for doing this is to have a lower the system complexity.

Claim Rejections - 35 USC § 103

13. Claims 17 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chellis in view of Katsube et al. (US 2004/0095914 A1; hereinafter “Katsube”).

For claim 17, Chellis teaches all of the claimed subject matter with the exception of evaluating the QoS service request based on information in a known field in the data packet. Katsube from the same field of endeavor teaches the QoS classification looks at the header information (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the resource management system of Chellis. The motivation for doing this is to have a more reliable system.

For claim 18, Chellis teaches all of the claimed subject matter with the exception of identifying a protocol ID in the known field of the data packet; and evaluating the QoS request based on the identified protocol ID. Katsube from the same field of endeavor teaches identifying and evaluating the QoS based on the protocol field (see paragraph 0043 lines 10 – 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the protocol field for QoS as taught by Katsube into the resource management system of Chellis. The motivation for doing this is to have a more reliable system.

For claim 19, Chellis teaches all of the claimed subject matter with the exception of identifying a source address and/or a destination address in the known field of the data packet; and evaluating the QoS request based on the identified source address and/or the destination address. Katsube from the same field of endeavor teaches the QoS classification looks at the header information which includes source and destination address (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube

into the resource management system of Chellis. The motivation for doing this is to have a more reliable system.

For claim 20, Chellis teaches all of the claimed subject matter with the exception of identifying a source port number and/or a destination port number in the known field of the data packet; and evaluating the QoS request based on the identified source port number and/or a destination port number. Katsube from the same field of endeavor teaches the QoS classification looks at the header information, which includes port number (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the resource management system of Chellis. The motivation for doing this is to have a more reliable system.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Angel et al. (US 2004/0044789 A1) is cited to show methods, computer program products, and systems for managing quality of service in a communication network for applications.

15. **Examiner's Note:** Examiner has cited particular paragraphs or columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references

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in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GARY MUI whose telephone number is (571)270-1420. The examiner can normally be reached on Mon. - Thurs. 9 - 3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit
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/Gary Mui/

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